

Name: key

Date: _____

Period: _____

Fill in table and sketch.

	Factored Form	Reduced Form	HA or SA	Domain	Holes	VA	x-int	y-int
1. $f(x) = \frac{2x^2 - 2x - 12}{3x^2 - 12}$	$\frac{2(x-3)(x+2)}{3(x+2)(x-2)}$	$\frac{2(x-3)}{3(x-2)}$	$y = \frac{2}{3}$ no SA	$x \in \mathbb{R}$ $x \neq 2$ $x \neq -2$	$(2, \frac{5}{6})$	$x = 2$	$(3, 0)$	$(0, 1)$
2. $f(x) = \frac{-4}{x^2 - 3x}$	$\frac{-4}{x(x-3)}$	$-\frac{4}{x(x-3)}$	$y = 0$ no SA	$x \in \mathbb{R}$ $x \neq 0$ $x \neq 3$	none	$x = 0$ $x = 3$	none	none
3. $f(x) = \frac{x^3 - 9x}{3x^2 - 6x - 9}$	$\frac{x(x+3)(x-3)}{3(x-3)(x+1)}$	$\frac{x(x+3)}{3(x+1)}$	no HA SA	$x \in \mathbb{R}$ $x \neq 3$ $x \neq -1$	$(3, \frac{3}{2})$	$x = -1$	$(0, 0)$ $(-3, 0)$	$(0, 0)$

